

## Patent Abstracts of Japan

PUBLICATION NUMBER : 10030693  
PUBLICATION DATE : 03-02-98

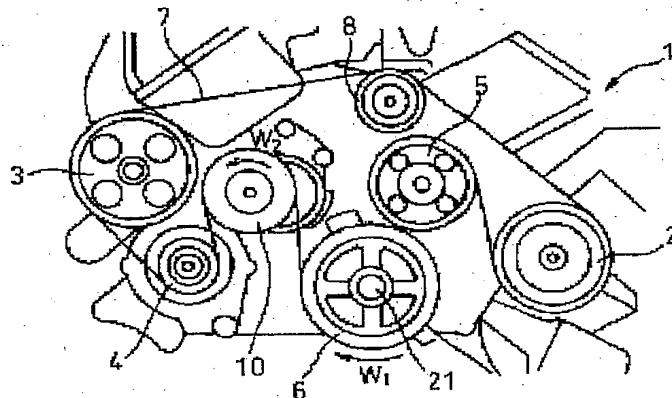
APPLICATION DATE : 16-07-96  
APPLICATION NUMBER : 08186158

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INT.CL. : F16H 7/02

TITLE : BELT DEGRADATION JUDGING METHOD



**ABSTRACT :** PROBLEM TO BE SOLVED: To dispense with an inspection in an engine room by calculating the rotating speed ratio of a driving pulley and a driven pulley in first and second load conditions of a driving shaft, detecting an electric current value of the driving shaft, and judging that a belt is degraded when an inclination of an electric current value variation to a rotating speed ratio variation is larger than a prescribed value.

**SOLUTION:** An electric current value by an alternator pulley 4 at head lamp lights-out time is detected, and rotating speed of a crankshaft pulley 6 at that time and rotating speed of an automatic tensioner pulley 10 are detected, and the rotating speed ratio at lighting time is calculated. Then, a head lamp is lighted, and the rotating speed ratio at lighting time is calculated. An electric current value at lighting and lights-out time is converted into load torque of an auxiliary machine, and its variation  $\Delta T$  and a variation  $\Delta H$  in the respective rotating speed ratios are calculated, and whether or not an inclination  $A = \Delta T / \Delta H$  is larger than a reference value is judged. A belt 7 is degraded, and when its core wire is partially cut, an elastic constant apparently increases. Therefore, when the inclination exceeds a prescribed value, it is judged that the belt is degraded.

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